

have higher prevalence rates of diabetes than white males and white females.² Also, low income is associated with the poor dietary and nutritional habits that are important risk factors for developing diabetes. Unfortunately, however, the MDC does not include the race or income variables on its records.

DISCUSSION

Spells of illness frequently culminate in hospital stays for the chronically ill. Persons with diabetes are particularly at high risk for hospitalization, as the disease is associated with severe neurological, cardiovascular, ocular, and renal complications. While studies suggest that diabetes-related complications can be prevented with good control of blood glucose levels, many diabetics are hospitalized each year. Therefore, information on diagnoses, procedures, and the length of hospital stay are important to diabetes surveillance, and treated as indicators of disease burden for monitoring purposes.

Using data submitted by hospitals to the MDC, the number and rate of diabetes-related hospitalizations were found to vary by age, sex, and county. Both the number and the rate increased with increasing age, reflecting both the increasing prevalence of diabetes² and the more frequent occurrence of complications as people age. Total and average charges per hospital stay were also higher for groups over the age of 40 than for those under.

Hospitalizations for diabetes-related conditions involved more females than males. Generally, crude hospitalization rates and total and average length of stay were also higher for females than males. However, the average cost per stay was higher for males. One explanation for this phenomenon may be that males tend to experience more costly complications than females.

The pattern of diabetes-related hospital discharge rates by county is similar to that reported in an earlier study of diabetes mortality in North Carolina.¹ That is, elevated rates cluster geographically throughout the east, and to a much lesser extent in the west. However, the MDC data does not include race as a variable in its files so that the county rates were merely adjusted for age. As the prevalence of diabetes also varies significantly by race, a more accurate representation of hospital discharge rates by region would require adjustments for both age and race.

The MDC data file has been useful to diabetes surveillance in describing patient utilization of hospitals by age, sex, and county. It has also provided the first diabetes-related cost information for North Carolina. However, that the file was available to SCHES only in summary form greatly limited the analysis of diabetes-related hospitalizations. Analyses of the relationships among diagnoses and treatment would require use of the individual UB-82 claims records. For example, the summary datafile would not allow for detail regarding persons with diabetes receiving non-traumatic amputations. The complete data file also includes information about pay status, as well as hospital level. Future monitoring of hospital discharges must be based on complete information, rather than summary files if it is to be of maximum value to diabetes surveillance and for describing the full burden of diabetes-related hospitalizations.

ADDENDUM

The general statute applicable to the MDC has very recently been amended to allow the State Health Director access to individual records. This amendment will allow the SCHES greater access to hospitalization information for future approved projects.